

【Claim 1】

A dishwasher comprising:

a cabinet;

a door rotatably mounted on a front side of the cabinet and having a display formed on an upper side thereof;

a top table for covering the upper side of the door and having a hole of a predetermined size formed on a portion contacting the display; and
a refraction unit inserted into the hole formed on the top table, for refracting light from the display.

【Claim 2】

The dishwasher according to claim 1, wherein the refraction unit is a transparent prism.

【Claim 3】

The dishwasher according to claim 1, wherein the refraction unit has a shape of an about rectangular parallelepiped.

【Claim 4】

The dishwasher according to claim 1, wherein the refraction unit has a refraction plane formed sloppily at a predetermined angle therein so that a user checks the display even at a position spaced apart a predetermined distance from the top table.

【Claim 5】

The dishwasher according to claim 1, further comprising:
a handle mounted on a front side of the door; and
a switch formed on one side of the door, for allowing the refraction unit to be raised or lowered.

【Claim 6】

The dishwasher according to claim 1, further comprising:
a spring unit mounted on a backside of the refraction unit, for allowing the refraction unit to be raised a predetermined height when a user presses the refraction unit and allowing the refraction unit to be lowered to an original position thereof when a user presses the refraction unit again.

【Claim 7】

The dishwasher according to claim 1, further comprising:
a drive unit mounted on a backside of the refraction unit, for allowing the refraction unit to be raised a predetermined height when a user presses the refraction unit and allowing the refraction unit to be lowered to an original position thereof when a user presses the refraction unit again.

【Claim 8】

The dishwasher according to claim 1, further comprising a switch formed on one side of the cabinet, for allowing the refraction unit to be raised or lowered.

【Claim 9】

*The dishwasher according to claim 4, wherein the refraction plane has a configuration such that a backward portion thereof is higher than a forward portion thereof.

【Claim 10】

A display structure of a dishwasher, comprising:

- a tub having a washing tub formed therein;
- a cabinet enclosing a periphery of the tub;
- a door coupled to a front side of the cabinet and having a display formed on an upper side thereof, for displaying a washing state;
- a top plate seated on an upper side of the cabinet;
- an insertion hole formed vertically in a front side of the top plate in a passing through manner;
- a prism inserted into the insertion hole, for refracting light displayed on the display at a predetermined angle; and
- a drive unit mounted inside the top plate, for moving the prism in an up/down direction.

【Claim 11】

The display structure according to claim 10, wherein the drive unit

comprises a spring mounted on a backside of the prism.

【Claim 12】

The display structure according to claim 10, wherein the drive unit comprises:

a drive motor;

a gear connected with a rotational shaft of the drive motor; and

a rack engaged with the gear, for moving in an up/down direction.

【Claim 13】

The display structure according to claim 12, wherein the drive motor is a step motor rotatable in forward/backward directions.

【Claim 14】

The display structure according to claim 10, further comprising a switch mounted on a side portion of the door, for allowing the prism to be movable in an up/down direction.

【Claim 15】

The display structure according to claim 10, wherein the prism comprises a transparent body through which light passes.

【Claim 16】

A display structure of a dishwasher, comprising:

a door having a display on an upper side thereof;

a top table for covering the upper side of the door and having a hole of a predetermined size right above the display; and

a light transmission unit inserted into the hole formed on the top table, for allowing the display to be checked from an outside.

【Claim 17】

The display structure according to claim 16, wherein the light transmission unit comprises a transparent body to refract light emitted from the display at a predetermined angle.

【Claim 18】

The display structure according to claim 16, wherein the light transmission unit reciprocates vertically in an inside of the hole.

【Claim 19】

The display structure according to claim 16, further comprising a drive unit mounted on a backside of the light transmission unit, for allowing the light transmission unit to be raised or lowered.

【Claim 20】

The display structure according to claim 19, further comprising a switch for controlling driving of the drive unit.

【ABSTRACT】